

Oil and Gas Potential of the Jurassic-Paleozoic Deposits of Western Siberia

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Assessment of oil and gas potential in pre-Jurassic complex of West Siberia was carried out on a number of key geochemical parameters – the content and type of OM, staging of katagenesis, characteristic of generational kerogen abilities. Based on the analysis of hydrocarbon and microelemental characteristics of naphthides, it is concluded that there are two sources of oil generation, able to saturate the formation of the basement. They are syngenetic organic matter of the sedimentary Paleozoic and epigenetic, generated organic matter of the sedimentary Jurassic and volcanic-sedimentary Triassic deposits. A significant difference in content of microelemental naphthides of Paleozoic and weathering crust of Jurassic sediments indicates on a separate center of oil formation in Paleozoic formations. Thus, given the large productivity of the Lower and Middle Jurassic deposits and a favorable geochemical environment of pre-Jurassic deposits of the northern regions in the West Siberian oil and gas basin (relatively high content of organic carbon and chloroform bitumoid), high realized generation potential (moderate and sufficient katagenetic warm up of the bowels), in conjunction with other geological prerequisites (reservoirs and confining beds), studied sediments can be regarded as highly promising objects to discover new oil and gas fields.

Biography:

Svetlana A. Punanova, Ph. D. in Geology of Oil and Gas and Organic Geochemistry Sciences, is a researcher and scientist in the field of trace elements in naphthides, oil and gas potential prospects, hydrocarbonic systems, its geological reserves and its phase state. She graduated from the Moscow State University in the field of Geology Sciences. Dr. Punanova is the author of 8 books and many articles in the area of her study. A number of articles has been published in the leading professional journals in the USA, France and Germany. She is a participant of scientific conferences (Beijing, St. Petersburg, Paris, Seville, Florence, Prague, Baku, Bishkek, Kazan, Moscow).